

### **REMARKS**

Claims 1-6, 8-14, and 21-30 are pending in this application. Claims 1, 8-10, and 21-25 have been amended. New claims 31-33 have been added. No claims have been canceled. No new matter has been added. Reconsideration of the claims and the remarks is respectfully requested.

### **Telephone Interview**

The Applicants thank Examiner Turk for the interview conducted on December 29, 2009. During the interview, Examiner Turk and the Applicant's representatives (John Gatz and Brad Taub) discussed proposed claim amendments and arguments. Examiner Turk suggested incorporating a "continuous and closed" element with respect to the optical communication path to further distinguish the claims over the art of record. Examiner Turk also suggested amending the claims such that both the input light guide and the output light guide are formed with a respective wall structure would further help to distinguish the claims over the art of record.

The Applicant has made amendments to the claims in light of the Examiner's suggestions and respectfully requests that the Examiner consider the following claim amendments and arguments.

### **Claim Rejections – 35 U.S.C. § 103**

Claims 1-5, 8, 10, 11, 13, 14, 21 and 25-30 were rejected under 35 U.S.C. § 103(a) as being obvious over European Patent No. EP 0254246 ("Meserol") in view of U.S. Patent No. 5,525,518 ("Lundsgaard"). Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being obvious over Meserol in view of Lundsgaard and further in view of U.S. Patent No. 6,001,307 ("Naka"). Claims 12 and 22-24 were rejected under 35 U.S.C. § 103(a) as being obvious over Meserol in view of Lundsgaard.

#### **Independent Claim 1**

Independent claim 1 recites, *inter alia*, (1) "an input reflector coupled with said input light guide for forming a portion of an optical communication path, said optical communication path being continuous and closed between said light input and said input reflector" and (2) "a light output, said optical communication path being continuous and closed between said light output and said output reflector." Both Meserol and Lundsgaard fail to disclose, teach, or suggest these elements individually or in combination.

The first element recites that the portion of the optical communication path between the light input and the input reflector is continuous and closed. Similarly, the second element recites that the portion of the optical communication path between the light output and the output reflector is continuous and closed. A non-limiting example of such continuous and closed paths is shown in FIGS. 1, 4, 5, and 8 of the present application. Meserol simply fails to disclose, teach, or suggest such a continuous and closed optical communication path. Lundsgaard does not make up for the deficiencies of Meserol.

Specifically, Meserol teaches a non-continuous and open optical communication path. As shown in, for example, FIG. 5 of Meserol, the light enters the cuvette 10 through wall 18 along the path of arrow 30. The optical communication path, then breaks from the material of the wall 18 into the cavity 22, which is filled with a medium such as optically transparent gel. Meserol, column 5, lines 8-10, FIG. 5. Similarly, the light exits the cuvette 10 through wall 18 along the path of arrow 34. Prior to exiting, the light in Meserol is reflected from the right angle 44 along the optical communication path to point 57 (FIG. 5), the path then breaks from point 57 into the cavity 22. The path then breaks again from the cavity 22 back into the wall 18 and out of the cuvette 10. Thus, Meserol teaches a non-continuous and open optical communication path with several breaks in the path.

As discussed in the previously filed Ripley Declaration filed on August 18, 2009, such breaks in the optical communication path, also called medium transitions, can scatter light that is subsequently lost. Ripley further explained that when a sufficient amount of light is scattered and subsequently lost, as is the case in Meserol, it is difficult, if not impossible, to obtain an accurate analyte reading. (§ 5 of Ripley Decl.).

Thus, for at least these reasons independent claim 1 is not obvious over Meserol, Lundsgaard, or the combination thereof.

#### Independent Claim 8

Independent claim 8 recites, *inter alia*, “said optical communication path being continuous and closed between said first end of said input light guide and said input reflector and being continuous and closed between said first end of said output light guide and said output reflector.” For at least the same reasons discussed above in reference to independent claim 1, independent claim 8 is not obvious over Meserol, Lundsgaard, or the combination thereof.

#### Independent Claim 25

Independent claim 25 recites, *inter alia*, “said optical communication path being continuous and closed between said input light guide and said input reflector and being continuous and closed between said output light guide and said output reflector.” For at least the same reasons discussed above in reference to claims 1 and 8, independent claim 25 is not obvious over Meserol, Lundsgaard, or the combination thereof.

#### Dependent Claims 2-6, 9-14, 21-24, and 26-33

Claims 2-6, 28, and 31-32 depend from independent claim 1. Claims 9-14, 21-24, and 33 depend from independent claim 8. Claims 26-27 and 29-30 depend from independent claim 25. Thus, for at least the same reasons discussed above in reference to independent claims 1, 8, and 25, dependent claims 2-6, 9-14, 21-24, and 26-33 are not rendered obvious over Meserol, Lundsgaard, or the combination thereof.

In addition to the reasons discussed above, several of the dependent claims include elements that are not disclosed, taught, or suggested in any of the applied references. For example, dependent claim 11 recites, *inter alia*, “said light transmission height being greater than said light guide height.” A non-limiting example of these heights is shown in FIG. 8 of the present application. The height of the input light guide 12 and output light guide 14 is illustrated as roughly half the height of the sample cavity 20. Meserol teaches a cuvette having a constant height. (*See, e.g.*, FIGS. 1 and 3 of Meserol).

For another example, dependent claim 31 recites “wherein said input light guide is substantially straight between its first and second ends and said output light guide is substantially straight between its first and second ends.” Meserol simply does not disclose, teach, or suggest substantially straight light guides.

**CONCLUSION**

The Applicant submits that the claims are in a condition for allowance and action toward that end is earnestly solicited. The Commissioner is authorized to deduct \$156.00 for three new dependent claims 31-33, and \$130.00 fee for a one-month extension of time. It is believed that no other fees are due; however, should any fees be required (except for payment of the issue fee), the Commissioner is authorized to deduct the fees from the Nixon Peabody Deposit Account No. 50-4181 (247082-000036USPT).

Respectfully submitted,

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/John C. Gatz, Reg. No. 41,774/  
John C. Gatz  
Registration No. 41,774  
NIXON PEABODY LLP  
300 South Riverside Plaza  
16th Floor  
Chicago, Illinois 60606  
(312) 425-3900 - Telephone  
(312) 425-3909 – Facsimile

ATTORNEY FOR APPLICANT